In 2022, the FlyBoard establishing an ad hoc committee to evaluate the potential offensiveness of Drosophila gene names and make recommendations to FlyBase. The committee found relatively few gene names of concern, all of which were related to or could be construed to relate to human ethnicity or disability. The committee recognized that different situations require different actions, and, as described below, it suggested a process to use in dealing with potentially offensive gene names.

I. Change the gene name and symbol to reflect molecular function

A straightforward way to deal with a potentially offensive gene name is to change it to emphasize its molecular function. If a gene has an unambiguous human ortholog, it should be renamed to reflect this homology and emphasize functional relatedness, e.g. the dunce (dnc) gene would be changed to Phosphodiesterase 4 (Pde4). The renaming should be explained within the FlyBase gene entry. The symbols for commonly used alleles should be changed to retain relationships to the original designations to provide mnemonic clues, e.g. dnc[1] to Pde4[dnc-1].

II. Change the gene name, but retain an obvious relationship to the original name

If a fly gene has no clear human counterpart, or the fly gene name is reflected in the human gene name in a way that altering the name would be too disruptive to the scientific literature, a “related” name should be used, e.g. Krüppel would be renamed Kr transcription factor. By deemphasizing original names and removing them from the name fields of gene entries, neither FlyBase nor the Drosophila research community will appear to sanction them. The renaming should be explained within the FlyBase gene entry.

III. Replace the gene name with the gene symbol

If a gene has not been identified at the sequence level, the existing symbol should be used as the new name to avoid the appearance of sanctioning the original name, e.g. midget would be renamed mgt. For most of the genes in this category, mutation-bearing stocks no longer exist and the mutations were too poorly mapped to match them to annotated genes; consequently, the loci are interesting only from a historical perspective. The renaming should be explained within the gene entry.

IV. Do not change the gene name, but comment on the potential offensiveness

If there is no consensus about potential offensiveness, the existing gene name should be retained (e.g. Deformed), but the controversy acknowledged within the gene entry.

V. The gypsy transposon

Wei et al*.* (<https://osf.io/fma57>) have argued for the offensiveness of the gypsy transposon name. While the element was first identified in Drosophila, gypsy and gypsy-like transposons are widespread across species. The committee proposed to refer the issue to a body with broad representation with the recommendation that the name mdg4 be considered. The committee recommended that FlyBase comment on the controversy in the gypsy entry and related entries.

VI. Conclusion

The committee wished to emphasize that individuals should feel free to use alternative gene names in conversations, talks and publications if they object to any names in FlyBase—as long as the identities of the genes are made clear. In general, FlyBase and the Drosophila research community are open to changing gene names when all the relevant researchers agree. Grassroots initiatives are welcomed. The FlyBoard will continue to maintain a standing committee to advise FlyBase on nomenclature issues.